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Abstract

This paper examines the historical origins of the bank-based financial systems in Germany and Japan and the market-based financial system in the US. It critically examines the "timing of industrialization" (TOI) thesis, i.e. the assertion that variation in the current structure of financial systems can be explained by differences in the timing of the "take-off" phase of industrialization. The first major claim I make is that TOI overstates both the significance of bank-based finance for the rapid industrialization of Germany and Japan and the extent to which the financial systems really were different. Second, I argue that TOI understates the importance of different patterns of state regulation, particularly starting in the 1930s, for explaining postwar differences in the financial systems. The third claim I make is that differences in financial regimes are dependent not only upon the narrow issue of financial regulation but also on the nature of the regulation of labor, including welfare regimes.

Zusammenfassung

In dem Papier werden die historischen Ursprünge des bankenbasierten Finanzsystems in Deutschland und Japan und des marktbasierten Finanzsystems der Vereinigten Staaten analysiert. Es wird eine kritische Überprüfung der „timing of industrialization"-These (TOI) vorgenommen. Ihre Kernaussage heißt: die Unterschiede in den derzeitigen Strukturen der Finanzsysteme können durch die Unterschiede der Zeitpunkte der „take-off"-Phasen der Industrialisierung erklärt werden.

Zuerst wird in dem Papier das Argument entwickelt, dass die TOI-These sowohl die Bedeutung eines bankbasierten Finanzsystems für die schnelle Industrialisierung Deutschlands und Japans als auch das Ausmaß der Unterschiede der Finanzsysteme *überbewertet*. Zweitens wird argumentiert, dass die TOI-These die Bedeutung unterschiedlicher Formen von staatlicher Regulierung, vor allem die seit den 30er Jahren praktizierten, in ihrer Erklärung der Unterschiede der Nachkriegs-Finanzsysteme *unterschätzt*. In dem dritten hier entwickelten Argument wird gesagt, dass die Unterschiede in den Finanzregimen nicht nur von dem eher engen Aspekt der Finanzregulierung abhängen, sondern auch davon, wie Arbeit und Sozialsysteme reguliert sind.

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A crucial aspect of the industrialization process is the development of an autonomous financial system, that is, a set of specialized organizations and institutions dealing with the transfer of payments and mediating the flow of savings and investment.[1] While all industrial societies have such a specialized financial system, cross-national comparison of these systems indicates considerable structural diversity (Zysman 1983). One key difference is the degree to which financial systems are bank-based or market-based. In bank-based systems, the bulk of financial assets and liabilities consist of bank deposits and direct loans. In market-based systems, securities that are tradeable in financial markets are the dominant form of financial asset. Bank-based systems appear to have an advantage in terms of providing a long-term stable financial framework for companies. Market-based systems, in contrast, tend to be more volatile but are better able quickly to channel funds to new companies in growth industries (Vitols et al. 1997) (see also Gregory Jackson's contribution to this volume). A second key distinction between financial systems is the degree to which the state is involved in the allocation of credit. State involvement in credit allocation can turn the financial system into a powerful national resource for overcoming market failure problems and achieving collective economic and social goals. However, financial targeting also runs the danger of resource misallocation due to inadequate reading of market trends or "clientelism" (Calder 1993).[2]

While every country has a different mix of institutional arrangements, these two dimensions are useful for identifying broad distinctions between countries in capital-market dynamics. A quantitative comparison of Japan, Germany, and the United States in the mid-1990s along the first (banks versus markets) dimension indicates a major distinction between the first two countries on the one hand and the United States on the other (see Table 1). The banking systems in Japan and Germany account for the majority of financial-system assets (64 and 74 percent, respectively), whereas banks in the United States (with about one-quarter of total financial-system assets) are only one of a plurality of financial institutions. Altogether over half of the combined assets of the nonfinancial sector (assets of the financial, household, company, government, and foreign sectors combined) in the United States are securitized versus only 23 percent in Japan and 32 percent in Germany. Particularly striking is the relatively small proportion of securitized company liabilities in Japan and Germany in comparison with the United States (15.4 percent and 21.1 percent versus 61.0 percent).

1 With the increasing differentiation of the economy and the transformation of traditional arrangements such as serfdom, relationships between different sectors – the household, the sphere of production, the state, and the foreign sector – are increasingly mediated by the money nexus centered on this financial system.

2 Clientelism involves the allocation of resources on the basis of privileged relationships to the state rather than on competitive or developmental strategy.

Comparison along the second dimension (the state's role in credit allocation), however, puts Germany closer to the United States than to Japan (see Figure 1). While public financial institutions in both Germany and Japan account for roughly the same proportion of financial assets (between 25 and 30 percent), there is little targeting of credits in Germany other than according to broad criteria such as small firms. In contrast, the targeting of public credits in postwar Japan also influences private credit allocation through the signaling function played by public institutions (Calder 1993).

What explains these considerable differences in the financial systems of the three countries? The most widely accepted theory, the timing of industrialization (or TOI) thesis, argues that key differences in national financial systems can be traced back to their respective industrialization phases (Gerschenkron 1962; Lazonick and O'Sullivan 1997). In countries where this process started early—the United Kingdom is the key example—firms were able to finance new investment gradually from internally generated funds or from securities issues in relatively developed financial markets. Firms in countries in which industrialization started later, however, faced a double disadvantage relative to their advanced competitors in early industrializing countries. First, internally generated finance was inadequate (or, in the case of newly founded firms, nonexistent) relative to the large sums needed for investments in "catch-up" technologies and infrastructure. Second, market finance was difficult to raise because securities markets were underdeveloped and investors were more inclined to invest in safer assets such as government bonds. Thus only banks could gather the large sums of capital required, take the risks involved in such pioneering ventures, and adequately monitor their investments. Once established, bank-based systems have a strong survival capacity. This interpretation of history provides support for the recommendation that developing countries follow the model of bank-based development (Aoki and Patrick 1994).

TOI draws on both the German and Japanese cases to back up its claim that bank-based systems were necessary for late industrializers to catch up with more developed countries. For TOI, Germany is the premier example of a developmental bank-based system. In the second half of the nineteenth century, particularly after 1870, joint-stock banks active in both lending and underwriting activities were established. These "mixed" banks enjoyed a close (Hausbank) relationship with many of their industrial customers. In addition to getting the lion's share of financial services business, these banks often held substantial stock in and appointed directors to the supervisory boards (Aufsichtsräte) of these companies. TOI claims that these mixed banks played an essential role in the rapid industrialization of Germany after 1870, not only through organizing large sums of capital unobtainable in nascent capital markets but also through providing entrepreneurial guidance (Gerschenkron 1962). The capacity of these banks for strategic planning was further demonstrated through the organization of rationalization cartels to deal with the overproduction crises in basic industry in the early twentieth century (Hilferding 1968). Finally, it is claimed that the three largest joint-stock banks (Deutsche Bank, Dresdner Bank, and Commerzbank) continued to use their close links with large industrial companies to act as the locus of private industrial policy in the postwar period (Deeg 1992; Shonfield 1965; Zysman 1983). The role of German banks is most frequently contrasted with the U.K. clearing banks, which allegedly have been more interested in short-term commercial finance than long-term industrial finance (Ingham 1984).

The unparalleled rapid development of Japan from a primarily agriculturally based economy well into the second half of the nineteenth century to the world's second largest industrial power is also cited by TOI as an example of bank-based economic development (Allen 1946; Patrick 1967). More so than in Germany, however, the state played an important role in development after the Meiji Restoration (1868). In addition to establishing many factories, the state also took the initiative in founding important financial institutions such as the postal savings system and the Industrial Bank of Japan. Banks played a developmental role not only in providing finance but also entrepreneurial advice for the nascent manufacturing sector. A typical line of analysis sees continuity in this developmental financial system from its early stages through the prewar zaibatsu holding companies to the current main-bank system.

On the basis of an empirical analysis of the development of financial systems in Germany, Japan, and the United States, this essay argues for a reexamination of the TOI thesis and a more nuanced analysis of the emergence of different types of financial regimes. While sympathetic to historical-institutional (HI) approaches, I disagree with TOI on three points. The first major claim I make is that TOI overstates both the significance of bank-based finance for the rapid industrialization of Germany and Japan and the extent to which the financial systems really were different. An important part of TOI is that banks in late industrializers are willing to take the large risks involved in investing the large sums of long-term capital needed to build industrial plant and infrastructure "from scratch." However, the order of development postulated by TOI—first banks, then industry in late industrializers—does not appear so clear-cut in the historical record. A number of large joint-stock banks were founded by industrialists, rather than the other way around. Furthermore, banks in fact had quite a conservative attitude toward risk and were careful in choosing the sectors and firms they would invest in. This cautious attitude toward lending has been characterized as "development assistance for the strong" (Tilly 1986).[3]

Second, I argue that TOI understates the importance of different patterns of state regulation, particularly starting in the 1930s, for explaining postwar differences in the financial systems. Despite the significantly earlier industrialization of the United States, the three financial systems exhibited strong tendencies to convergence and, by World War I, were characterized by a model of largely laissez-faire domestic regulation, participation in the gold standard international regime, and increasing domination of the financial system by a small number of "mixed" banks (i.e., banks involved in both lending and underwriting activities). Instead, the 1930s and 1940s were the crucial "regulatory divide" (Forsyth and Notermans 1997) during which the United States became considerably more market-based and Germany and Japan more bank-based. The crucial actor in this process was the state, which departed from a more or less laissez-faire attitude toward financial regulation and took active steps to reshape the financial system. This activism was motivated by a number of

3 For other literature supporting a reappraisal of TOI in the context of the German case see Feldenkirchen (1991), Fohlin (1998), Wellhöner (1989), Wixforth (1995) and Wixforth and Ziegler (1995).

factors, including the increasingly obvious tendencies of laissez-faire financial regimes toward increasing instability—culminating in the Great Depression—and the shifting economic and social goals of the state.

Differences in the regulatory solutions developed by national states are attributable to the nature of state goals and national patterns of state intervention. The goals of the Japanese state regarding the rate of industrial buildup were much greater than was the case in Germany and the United States, and the state utilized financial targeting as one of the most efficient ways to achieve these goals. However, national patterns of state-economy relationships already established in other sectors—liberal regulation based on a contractual approach in the United States, corporatism in Germany, and administrative guidance in Japan—were also important factors influencing the financial regulatory structures that were developed. The U.S. liberal regime relies on sanctioned rules defining “fair play” in financial markets and restraining commercial banks from involvement in these markets. While both the German and Japanese nonliberal financial regimes are much more bank-based, each has considerably different patterns of state involvement. In Germany, corporatist regulation has reinforced the dominant position of banks vis-à-vis markets but has removed the state from credit allocation decisions to a much greater extent than in Japan. Significantly, these differences persisted despite U.S. attempts to impose its liberal system of financial regulation in both countries after World War II.

The third claim I make is that differences in financial regimes are dependent not only upon the narrow issue of financial regulation but also on the nature of the regulation of labor, including welfare regimes. Major secular trends in industrialization are the increasing proportion of national income accounted for by wages and salaries and a growing portion of household savings formally dedicated to retirement income. The way in which labor income and welfare is regulated thus influences whether savings will flow into the banking system (including public versus private institutions) or into marketable securities. The voluntarist system of capitalized pension funds established in the United States led to a higher demand for marketable securities than the solidaristic pension systems in Germany and Japan based on pay-as-you-go social security and noncapitalized company pensions (Jackson and Vitols 1998). Second, the industrial relations systems established in Germany and Japan created a more equal distribution of income than the voluntarist system established in the United States. Since wealthier households tend to have a greater demand for marketable securities than low- and middle-income households, the more equal distribution of income for bank deposits in Germany and Japan supports greater demand for bank deposits (including nonliquid long-term deposits) than is the case in the United States. This elective affinity between solidaristic labor regimes and bank-based financial regimes is important in controlling the relative size of the market segment of the financial system.

The second section of this paper shows that, by the early twentieth century, all three countries were characterized by a largely laissez-faire financial regulatory regime increasingly dominated by mixed banks. The third section analyzes the political construction of liberal and nonliberal financial regulatory regimes in the three countries in the middle of the twentieth century. The fourth section explores the elective affinities between the regulation of labor and finance in the systems established in these three countries. The final section summarizes and concludes.

The Emergence of Laissez-Faire Financial Regulatory Regimes

The major claim of TOI is that key characteristics of national financial systems can be traced back to the industrialization period (as outlined in the introduction). However, I argue here that a closer examination of the historical evidence—which is backed up by a good deal of recent scholarship on individual countries—supports a more nuanced interpretation than the simple version of TOI. While recognizing that there were important national peculiarities, this alternative interpretation stresses the degree of similarity in the structural development of financial systems despite the timing of industrialization.

The first common feature of financial systems during industrialization is that, once traditional constraints on financial activity—as well as other constraints on "capitalistic" activity in general—had been removed and the joint-stock form of banking was authorized, there was relatively little state regulation of banking systems or securities markets.[4] The second common feature is that, under this laissez-faire regulatory regime, banks initially proliferated rapidly. After an initial period of numerical expansion, a concentration process set in and a small number of banks—typically based in one national financial center—accounted for an increasing proportion of banking-system assets. As stock markets grew in importance, these banks also expanded beyond traditional lending and deposit-taking activities into underwriting and brokerage activities. These "mixed" (commercial and investment) banks, which increasingly dominated financial systems, enjoyed a great deal of flexibility in providing finance, for example, in providing loans in anticipation of a securities emission and in carrying significant portions of these securities in their own portfolios. Finally, a third common feature is that banks in all countries—at least the ones that survived for longer periods—tended to seek out companies with established track records and limited risk. As the capital-labor ratio and the scale of companies increased in industries such as railroads, coal, and steel, the demand for external long-term finance grew. In order to reduce their long-term risk exposure, banks encouraged these companies to turn to stock markets for long-term finance.

These laissez-faire financial systems, however, were characterized by increasing tendencies to instability. The greater interdependence of financial institutions on regional and national levels (e.g., through greater interbank liabilities) rendered the banking systems vulnerable to systemic crises. Bank runs, for example, could be triggered by problems at one bank and spread throughout the region or even the country. The potential for systemic financial crises was increased through the speculative opportunities offered by the new securities markets (particularly futures markets) and through the increasing degree of "maturity mismatch" caused by reliance on short-term deposits to fund long-term investments.[5] These destablizing

4 Typical traditional constraints included usury laws, royal or parliamentary chartering requirements, granting of monopolies, and full financial liability for partners.

5 The increasing concentration of fixed capital (plant and equipment) posed a substantial challenge for a financial system basically organized around short-term financing techniques for trade and inventory. The loan evaluation techniques used by these systems were based on the value of assets used as security rather than on the expected increase in future income generated by the new investment. Relying on the current deposits of a group of local companies made the supply of long-term finance highly dependent upon the local and cyclical supply of savings.

tendencies led to increasingly severe financial panics and crises culminating in the Great Depression of the 1930s. The search for regulatory solutions to instability coincided temporally with the search to meet collective social and economic goals (such as economic development and mobilization for war) and to solve aspects of the "labor problem." One of the potential tools for achieving these goals was the financial system. In contrast with the laissez-faire regulatory regime, however, the new regulatory regimes differed greatly in accordance with national patterns of state intervention and with the nature of these collective social and economic goals.[6]

Laissez-Faire Regulatory Regimes

Historical accounts of industrialization stress the low degree of regulation in the three countries both in banking and on the stock exchanges once traditional constraints had been removed. In Germany, the crucial regulatory divide took place around 1870. Until then, the German financial system was dominated by a small number of private banks largely oriented toward government finance.[7] Financial functions in everyday business activities in an economy dominated by small owner-operated businesses were largely handled as ancillary activities by merchants, goldsmiths, etc. The stock exchanges that existed were small and geared toward commodities and government securities.

The takeoff period of the German financial system can be traced to the introduction of free incorporation of joint-stock banking in 1870.[8] This initiated the laissez-faire period of German financial-system regulation which lasted until 1931 (Büschgen 1983). Despite a number of banking crises, there were no successful attempts at imposing comprehensive legislation upon the banking system. Instead, specialized portions of the banking system were regulated, mainly the mortgage banks. Legislation on the provincial level also regulated municipal savings banks and cooperatives (Kluge 1991). Efforts to regulate the stock exchanges were ineffective. In the wake of the speculative crisis of the early 1890s, a national legal framework for the stock markets was created by the Stock Exchange Law of 1896 (Pohl 1992). However, this law contained few norms, delegated much rule-making to

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Furthermore, since the funding base of these banks was mainly short-term deposits, banks were exposed to increasing liquidity risk (the risk that adequate liquid funds are not on hand to cover a substantial withdrawal of deposits) as they increased their long-term investments.

6 While it is beyond the scope of this essay to explain the causes of differences, the consistency of national regulatory patterns across issue areas appears to indicate dependence on fundamental factors such as the structure of government, the balance of power between different societal interests, and national traditions of policymaking (see the introduction to this volume for a discussion of this issue).

7 The term "private bank" is generally applied to banks owned by a single person or partnership. Joint-stock banks are also mostly privately owned, but distinguish themselves from private banks by the larger number of owners and the principle of limited liability (i.e., the financial liability of owners is limited to the amount of funds invested).

8 As an example of the difficulties of incorporation in financial services, Prussia (the largest German state) issued charters for only two joint-stock banks prior to this legislation: the Schaaffhausen'scher Bankverein in 1848 and the Deutsche Bank in 1870, only a few months before passage of the law. The Prussian authorities' reluctance to authorize joint-stock banks (and companies in general) can be traced to their suspicion of "anonymous" ownership.

the regional exchanges themselves, and within a few years was amended to strip it of its most important restriction, the prohibition of futures trading.

In Japan, a laissez-faire financial regulatory regime also emerged in the decades after the Meiji Restoration in 1868. Following a number of experiments based in part on the Belgian central bank and the U.S. model of national banks, central-bank monopoly over currency issue was introduced in 1882 and liberal entry to banking was established by 1890 (Tamaki 1995). The uncertain attitude of the government toward stock exchanges also eventually gave way to a permissive regime. Initially, only one- to two-year licenses for brokers were issued, and trading in stocks was temporarily suspended a number of times. However, this policy changed and a more stable framework was created with the passage of the Exchange Law of 1893, which contained few substantive regulations. A revision of the Exchange Law in 1914 proved unsuccessful in curbing speculation-driven instability (Adams 1964, 57-59).

The first banks in the United States were founded after the American Revolution. Banks generally had to seek charters from legislatures. The ambiguity of the federal government toward banks can be seen in the ongoing debate on the necessity of a national banking system. The charter of the Bank of the United States, the only national bank, was granted only for a limited number of years and was not renewed by Andrew Jackson. With the withdrawal of the federal government from banking regulation in 1836, the era of “free banking” was introduced, in which many states passed laws requiring only a minimum amount of capital for the establishment of a bank (Dowd 1993). When federal regulation was reintroduced in the early 1860s during the Civil War, state-level regulation remained intact, resulting in a bifurcated system under which banks could choose a national or state-level charter. This dual regulatory system, which still exists, reinforced the laissez-faire tendency by allowing banks to choose the less restrictive regulatory regime. National and many state-level systems of bank regulation were characterized by infrequent bank examinations and ineffective enforcement of regulations. The major exception to this rule were branching restrictions on banks, including limits on the geographical area in which a bank could have branches or limits on the number of permissible branches.[9]

Early efforts on the national level to restrict bank involvement in securities activities were easily circumvented by banks, which obtained state charters for their investment-banking subsidiaries. Stock exchanges were basically self-regulated cartels, as there was no legislation regarding the issuance or trading of securities and no regulatory agency responsible for oversight of the stock exchanges (Seligman 1995).

Banking System Dynamics: From Proliferation to Concentration

The liberalization of joint-stock banking in 1870 led to the rapid transformation of the German financial system, which had previously been dominated by small private banks. Joint-stock banks were founded by manufacturers and merchants, and many private banks eventually chose incorporation in order to survive. The number of joint-

9 “Unit banking” states, in which banks were allowed to have only a central office and no branches, represented the limiting case.

stock banks peaked at 169 in 1890 (Deutsche Bundesbank 1976, 56). These banks were originally dispersed throughout the provinces. However, a dynamic of increasing concentration of both money-market activities and lending to larger industrial companies in Berlin emerged. While cooperative arrangements (Interessengemeinschaften) between the large Berlin banks and provincial banks were common up until World War I, a pattern of outright acquisition of provincial banks by the Berlin banks became predominant thereafter (Feldman 1998). By 1928 the eight Berlin Großbanken accounted for about half of all banking-system assets. Through their underwriting and price-stabilizing (Kurspflege) activites, these large joint-stock banks also replaced the associations of independent brokers (Makler) as the dominant actors on the stock exchanges.

In Tokugawa Japan (1600-1868), banking functions were centered on the money changers (ryōgaeya) located in the trading centers. The Meiji government initially was quite cautious and provided special charters for a small number of banks, in some cases negotiated with the ryōgaeya. Between 1873 and 1876, the number of banks increased only from two to six. Once liberal entry was established, the number of banks multiplied rapidly and reached a peak of 2,358 in 1901 (Tamaki 1995, 223-24). After this point, the first of a number of concentration waves started. The end result was the emergence of a relatively small number of large banks, in many cases linked with zaibatsu and for the most part based in Tokyo.

Japanese stock exchanges were also initially dominated by specialists involved in secondary trading (Adams 1964). New industrial securities issues were offered directly by the issuer to the public. However, around the turn of the century, the big banks came to play an increasing role on these exchanges as underwriters. This seems to have been motivated by the growing size of issues of industrial securities. Specialized securities dealers only gradually expanded from secondary trading to securities underwriting. By the 1920s, as Yamamura (1972) shows, the large Japanese banks had developed into full-blown providers of industrial finance through both longer-term lending and investment-banking activities similar to the German mixed banks.

Mixed Banking and Finance for the Strong. An important part of the TOI theory is that banks in late industrializers are willing to take the large risks involved in investing the large sums of long-term capital needed to build industrial plant and infrastructure from scratch. One would thus expect to find a different order of historical appearance of organizations as well as significantly different patterns of finance. Banks would clearly precede industry and provide more bank loans to heavy industry in late industrializers than in early industrializers.

However, careful studies on Germany question the extent to which German banks were really willing to take risks in developing new industries and to which bank involvement in company decision making was really welcomed by managers. One criticism is that the order of development postulated by the late industrializers—first banks, then industry—does not appear so clear-cut in the historical record. Second, the banks had quite a conservative attitude toward risk, for example, in financing smaller firms and local government, which however were arguably as important for industrialization as large firms (Tilly 1966). Third, companies were mainly internally financed, and most loans they received were short-term. Banks sought to minimize their lending risk (while at the same time maintaining their lucrative ties with industry) by encouraging customers to obtain long-term capital in capital markets. While banks would hold a portion of the securities they underwrote, these holdings were generally seen as temporary, until buyers at an appropriate price could be found in the market (Edwards and Ogilvie 1996). Securities holdings of German banks at the beginning of the twentieth century were not significantly larger than U.K. bank holdings (Fohlin 1997). Industrial companies also generally appear to have disliked the controls banks wanted to place on them and sought to reduce their debt to (and thus increase their independence from) banks during periods of less rapid growth (Feldenkirchen 1982).

Similarly, Japanese banks and the state also played a more modest role in industrialization than is commonly claimed (Yamamura 1972). First—parallel to Tilly's "development assistance for the strong" in the German case—most of the nascent industrial companies were unable to get bank financing until they were well established (i.e., were better lending risks) and thus were self-financed during their early stages. Second, while the main source of external finance for industry in the earlier phases of industrialization was bank loans, most of the capital provided by banks was in the form of short-term loans rather than long-term finance. As the need for long-term capital grew, in the 1890s an increasing number of companies (particularly in the railroad, mining, shipping and shipbuilding, and cotton-spinning industries) started to raise long-term finance in stock markets. While banks began to play a major role in underwriting after 1900, the banks themselves only retained a relatively modest proportion of these issues. Total equity holdings by all financial intermediaries fluctuated between 5 and 11 percent of all corporate stock outstanding in the first half of the 1900s (Ott 1961, 129). Finally, the link between the state's developmental activities and the new banks was more tenuous than often claimed.

The activities of the large banks in Germany and Japan were thus similar to those of the large banks in the United States such as JP Morgan, which were extensively involved in both lending and securities underwriting activities. These banks engineered major sectoral reorganizations such as mergers in sectors including railroads and steel through extensive shareholdings and board representation (Chernow 1990; White 1991). Since the United States lacked a central bank until World War I, the House of Morgan also played the role of informal "lender of last resort" a number of times, e.g., during the panic of 1907. A number of commercial banks, such as National City Bank, became increasingly active in underwriting operations during and after World War I.

Financial Instability and Social Costs

Whatever the long-run benefits of the laissez-faire regime might have been, the short-term social costs of maintaining it were often high. Under the gold standard, adjustment to short-term capital outflows required deflationary monetary policy, which often triggered sharp increases in unemployment and banking crises (Eichengreen 1995). Germany experienced severe banking crises in 1873 (one component of the Gründerkrise), the mid-1890s, 1907, and especially 1931. In Japan, there were systemic crises in the banking system in 1896, 1901, 1908, 1920, and 1922 (Yabushita and Inoue 1993). The worst banking crisis unfolded in the decade after the 1923 Great Kanto Earthquake in the Tokyo area. Festering problems with bad loans erupted in 1925 and again in the 1927 banking crisis. The United States also experienced a series of banking crises culminating in the banking-system collapse following the 1929 U.S. stock market crash.

As Eichengreen (1995) argues, the financial and social costs of these crises were increasingly unacceptable politically as the main victims of these crises (farmers and workers) gained political power and the links between monetary policy and these crises became better understood. At the same time, World War I and the ensuing reparations agreements had seriously weakened international monetary cooperation, which was also an essential part of the adjustment process to short-term capital flows. Thus both the political and technical preconditions for sustaining the laissez-faire regime had seriously eroded by the 1930s.

Summing Up

The main contribution of the state regarding financial-system development in the laissez-faire period was to enable the rapid proliferation of banks through reducing barriers to entry.[10] While financial statistics before World War II should be treated with great caution, they suggest that differences between the countries were smaller than suggested by TOI (see Table 2). In all of these countries during this phase, banks dominated the financial system, accounting for over four-fifths of financial system assets. These banks' links with growing firms can best be described as "development assistance for the strong," thus their contribution to industrial "takeoff" through entrepreneurship can most accurately be described as modest. The relative size of securities markets in the three countries (between 100 and 150 percent of GDP by the 1920s) also seems remarkably similar despite considerable differences in the timing of industrialization. As one comparative study of Japan and the United States notes: "The striking thing...is that the broad contours of Japanese financial development were not radically different from—and in many respects quite similar to—those in the United States, over roughly comparable periods of economic development" (Ott 1961, 135). The same would appear to be the case for Germany (Pohl 1984).

Beyond Laissez-Faire: Liberal and Nonliberal Financial Regulatory Regimes

As indicated in the data presented in the introduction, differences between financial systems in Germany, Japan, and the United States are extensive. When did these differences arise? If the timing of industrialization does not explain differences in the systems, what does? In the previous section it was established that differences in the financial systems in Germany, Japan, and the United States in the early twentieth century were less significant than claimed by TOI. I argue in this section that these

10 The other primary—and decidedly less successful—contribution of early capitalist states in financial regulation was to attempt to provide an elastic but stable money supply.

differences mainly arose in the 1930s and 1940s with the construction of very different regulatory regimes by state actors.

One of the fundamental questions faced by the state was how to reestablish and promote stability in financial markets. Here state elites were guided by their political ideology, in particular by their ideas about the proper role of markets within the economy and society. In both Japan and Germany, these elites were very critical of market capitalism and constructed a regulatory system that gave clear preference to bank domination of the financial system. This critique was expressed in Germany in the choice of corporatist regulatory mechanisms and in Japan by a much more direct relationship between individual banks and the state through administrative guidance. Despite liberal rhetoric in postwar German politics under the guise of “ordoliberalism” (see the chapter by Gerhard Lehmbruch in this volume), the basic philosophy of preference for banks persisted after the fall of the Nazi regime. While Franklin D. Roosevelt’s “New Deal” administration was also skeptical about the benefits of unfettered markets, the majority of his advisers and of New Deal supporters in Congress did not subscribe to a fundamental critique of capitalism. Instead, a liberal approach to regulating markets already developed during the Populist and Progressive Eras in areas such as antitrust and utilities was applied to financial markets. This approach, which involved the definition of rules for “fair play” on markets by independent agencies and recourse to the judiciary for the enforcement of these rules, had the effect of strengthening financial markets relative to the banking system.

A second important issue for the state was the extent to which the financial system was to be used as a “national resource” for the achievement of economic and social goals. The laissez-faire financial systems were poorly suited to support recovery from banking crises and depression, promotion of industries key to the war effort, and postwar reconstruction (including not only economic development but also the fulfillment of “social promises” made by postwar governments). State elites in Japan, which decided to actively use the financial system to steer war mobilization and postwar economic growth, created new or upgraded existing financial institutions and constructed new mechanisms of control such as licensing and administrative guidance to achieve these goals. Due to Japan’s relatively less developed status, its economic goals regarding the rate of growth were of course much more ambitious than was the case in the other two countries.

In the liberal context of U.S. regulation, in contrast, the financial system was used mainly to support state goals indirectly through the purchase of government bonds or through the granting of tax preferences for classes of investments such as housing. Despite rhetoric among hardliners demanding the nationalization of banks, the Nazi regime supported the corporatist framework by also using a system of direct contracting rather than systematic targeting of credits to specific manufacturers. After World War II the corporatist framework was sustained by channeling Marshall Plan funds for reconstruction through a special bank, the Kreditanstalt für Wiederaufbau, rather than through the banking system as a whole.

The foundations of the current German financial regulatory regime were established in the wake of the banking crisis of 1931.[11] Similar to the pattern of state intervention established in other areas, the regulatory system established here was corporatist, in which self-regulation of the group in question—typically through collective representation through associations—is the regulatory mechanism. This generally relies on the "responsible" exercise of influence by group leaders. The difference between "voluntary" self-regulation and corporatism, however, is that regulations devised by the association are recognized as "binding" by the state. While much of the influence of associations is of course informal in nature, these key regulations—and the need to have access to the resources the association can provide—give a "harder" quality to corporatist than to voluntary self-regulation (Schmitter and Streeck 1985).

The first comprehensive national banking regulation, which was imposed during the banking crisis of 1931, relied mainly on corporatist mechanisms (Born 1967). This regulation took the form of a number of emergency decrees. In order to put constraints on destructive price competition characterizing the 1920s, one decree authorized banking associations to determine binding interest rates on deposits and fees for standardized services. Another decree created a bank regulatory agency which, together with the central bank and in consultation with bank associations, was empowered to develop and enforce minimum capital and liquidity requirements and prudential regulations (insider credits, large credit limits, maturity matching requirements). Entry was more strictly regulated, particularly in the case of credit cooperatives which had to receive approval from the appropriate regional cooperative association.

Although some influential voices within the Nazi Party wished to nationalize or abolish the large banks as part of a campaign against capitalism, the banking community was able to successfully control the process for formulating the 1933 Banking Act, which for the most part retained the corporatist elements of the 1931 decrees (Kopper 1995). The department for banking regulation established at the Ministry of Finance was composed primarily of managers from the banking community. In contrast with the Japanese case, the Nazis preferred to largely bypass the banking system in the targeting of financial resources for military production. While banks were instructed to purchase a large part of the national debt, the Nazi state usually prepaid military contracts rather than relying on bank credits.[12]

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11 The banking crisis of 1931, which spread from the Austrian Credit Anstalt to Germany in June 1931, was exacerbated by imprudent banking practices such as overreliance on foreign short-term capital and excessive long-term lending to one or a small group of customers. Many of the large banks became insolvent and had to be nationalized in order to keep the banking system from completely collapsing, and trading on securities markets was fully suspended.

12 This touches upon an important historical controversy, namely, the extent to which the institutional framework for the postwar "economic miracle" (Wirtschaftswunder) was established under the Nazi regime. One important point to be noted here is that corporatism was established as the dominant mode of regulation in many spheres of economic and social activity well in advance of the 1930s. A second significant point is the fact that the initial organization of industry for military production under the authority of Göring was based on a hierarchical – and

Although there was no major legislative reform of the Stock Exchange Law of 1896, nevertheless a number of regulatory changes radically transformed the nature of capital markets, rendering stock markets unattractive sources of capital relative to bank loans. Stock markets were widely held by the Nazi government to have exacerbated the financial crisis through the investment of capital in "speculative" instead of "productive" purposes. When stock exchanges were reopened in early 1932, trading in futures on stocks and bonds, which was considered the most speculative part of securities markets, was completely prohibited. New stock emissions were subject to strict control, minimum information content for prospectuses for new securities issues was defined, and the statute of limitations for prospectus fraud was extended. Public (municipal and national) securities were given general priority over industrial securities in access to stock exchanges (Henning 1992; Merkt 1996).

The U.S. occupying authorities attempted to impose a U.S.-style financial system as part of a program of democratization (Horstmann 1991). The large banks were broken up into smaller units and regulatory authority delegated to the regions. While the liberal rhetoric of the postwar government of Konrad Adenauer appeared to signal agreement with many of the reform goals of the United States—for example, in stressing the importance of efficient capital markets for reconstruction—many of the continuities with the 1930s are more striking than the changes. The core principles of regulation established in the 1931 emergency regulations and the Bank Act of 1933—such as corporatist interest-rate regulation—were quickly reimplemented. The experiment in financial federalism was terminated with the merger of the Bank deutscher Länder into the Deutsche Bundesbank and the remerger of the dismembered Großbanken (this time with headquarters in Frankfurt). Government policy toward stock markets discouraged their development as a source of long-term capital for industry. The tax system, for example, favored public bonds (particularly for housing and infrastructure) over industrial bonds. Double taxation of equities (corporation tax plus individual income tax) stunted the development of equities markets. In addition to these measures, a corporatist bond committee composed of the leading securities issuers (joint-stock banks and the national banks for the credit cooperative and municipal savings-bank sector) was formed to control access to bond markets with priority for public and bank bonds.

As a result of these regulations, the pattern of industrial finance for large companies clearly shifted from the pre-1930s pattern of short-term loans from banks and long-term finance from securities markets (Pohl 1984). The number of companies listed on the stock exchanges declined throughout the postwar period until the late 1980s and new equity issues were rare. Company debt came almost completely through long-term bank loans instead of bonds. Postwar securities markets were almost entirely dominated by municipal and bank bonds (and, after the first oil crisis, federal bonds) (Vitols 1998).

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relatively inefficient -- command form. One of the most significant achievements of Albert Speer, armaments minister after 1943, was to replace administrative control of production with more cooperative relations with industrial managers within a corporatist framework. This had the effect of significantly boosting armaments production (and in all likelihood extending the length of the war.)

While long-term finance shifted from securities markets to banks, the degree of targeting through the banking system remained limited relative to the Japanese case. In the immediate postwar period a limited quantity of funds (mainly European Recovery Program funds) were targeted through the Kreditanstalt für Wiederaufbau (Bank for Reconstruction) to basic industry, transportation, and housing (Pohl 1973). The targeting of specific sectors within industry ended in the early 1950s, when long-term credit agencies shifted their main focus to the general support of small and medium-sized businesses. Significantly, these long-term credits were used to refinance these firms' Hausbanken (mainly credit cooperatives and savings banks), and thus to draw on these banks' customer-specific relationships, rather than to directly lend to the companies (Menzel 1960).

This regulatory system has supported one of the most stable banking systems among the industrialized countries. The German banking system, which is unique in the degree to which clear quantitative regulatory standards have been applied to the whole banking sector, has been remarkably free of the speculative bubbles and credit crunches experienced in other industrialized countries (Vitols 1998). The stock exchanges also have an exceptionally limited number of listed companies and a low degree of capitalization and turnover of shares despite Germany's stature as a manufacturing power.

Japan: Administrative Guidance and Network Finance

Financial crisis, war mobilization, and postwar reconstruction triggered a quantum leap in the level of regulation of the financial system in Japan. As Ueda (1994, 90) notes:

> An interesting feature of the Japanese financial system until about the 1920s was that it was mostly free from government regulations. Financing through equities or bonds was as important as bank lending. There was no separation of banking and securities businesses. However, a series of financial panics and World War II had completely changed the character of the financial system.

The Banking Act of 1927, which was passed in response to the Banking Crisis of 1927, granted sweeping regulatory powers to the state. However, these powers were first utilized to a great extent in conjunction with military mobilization in the mid-1930s when an effective system of close bank regulation under the Ministry of Finance was built up. Unlike the corporatist German system, however, the Ministry of Finance preferred the flexibility of administrative guidance in dealing with banks individually. The establishment of an extensive licensing system reinforced government influence by controlling entry to the financial system and by making existing institutions dependent upon government approval for many actions such as the establishment of new branches (Sohn 1998).

Similar to the German case, a number of constraints imposed on stock markets rendered them unattractive sources of industrial finance relative to bank credits. Starting in the mid-1930s, public securities were prioritized over private securities. Controls on issuance of new securities were imposed, including a requirement for collateral for industrial bonds and the requirement for permission from a bank-dominated Bond Committee. Eventually, only new securities issues for war-related industries were permitted (Adams 1964).

Another common aspect with Germany is that the U.S. occupation authorities unsuccessfully tried to export a U.S.-style financial system to Japan as part of a program of democratization of the economy after World War II (Tsutsui 1988). Although banking and brokerage activities were separated, these authorities did not achieve many other objectives. An independent securities regulatory commission created by the 1948 Securities and Exchange Law on the model of the U.S. Securities and Exchange Commission was abolished in 1952 and its functions taken over by the Ministry of Finance. A 5 percent maximum shareholding limit was rapidly raised to 10 percent. While two-thirds of stocks were distributed to households after the war, stocks rapidly accumulated in the hands of "friendly" financial institutions and companies. By the 1960s, an estimated 60-65 percent of large company stocks were held by "friendly" investors not terribly concerned with share price. Futures were also prohibited and an effective secondary market was hindered by the minimum transaction requirement of 1,000 shares (Baum 1996).

A final similarity with the German case is that the pattern of long-term finance for industry in Japan shifted away from securities markets to the banking system. The proportion of external finance for industry accounted for by bank loans increased from about half in the 1910s and 1920s to about four-fifths in the 1960s and 1970s. This seems to have strengthened the links between the main banks and industrial companies. While the links between companies organized under the zaibatsu were dissolved by the U.S. occupying authorities after World War II, these companies were reconfigured into keiretsu in which a trading company, manufacturing corporations, a main bank, and other financial institutions (e.g., insurance companies and trust banks) have considerable cross-shareholdings. The keiretsu appear to be more significant than the prewar zaibatsu; whereas almost all of the largest Japanese industrial companies now belong to a keiretsu, only a few of the largest Japanese manufacturing companies belonged to zaibatsu before the mid-1930s (see Gregory Jackson's essay in this volume).[13]

Unlike Germany, however, the degree of targeting through the financial system was much higher (Zysman 1983). As previously discussed, military funding was channeled directly through the banking system to industry to a much greater extent in Germany than in Japan. Funds through the Fiscal Investment and Loan Program are targeted, and the Bank of Japan favored certain sectors throughout much of the postwar period (Suzuki 1987). These public funds also affect the allocation of private funds through their "signaling" of government support for these sectors and companies (Calder 1993).

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13 The nonmarket elements of the keiretsu structure include (1) the high proportion of external finance provided through bank loans rather than through securitized finance (bonds and equity); (2) the reciprocal obligations between the "main bank" and its primary clients (the main bank is obligated to "rescue" its clients in case of financial distress, while the clients are expected to turn to the main bank for financial services not necessarily at "market rates"); and (3) the high proportion of shareholdings in friendly hands not motivated by short-term dividend policy.

While market systems are often associated with laissez-faire or nonregulation, the development of the U.S. financial system is a powerful illustration of how certain types of markets must be carefully regulated in order to avoid dysfunction.[14] As in the case of Germany and Japan, the U.S. financial system during its laissez-faire stage was characterized by increasing instability. The 1929 stock market crash was only the first stage of a multiyear financial crisis culminating in the banking crisis of 1933.

Upon taking office in 1933, President Roosevelt's "New Deal" approach to state-society relationships rejected the voluntarist attitude of Herbert Hoover's administration. However, despite calls from some advisers and members of Congress for a more radical approach (including nationalization of the large banks), the national regulatory system established for financial markets drew heavily on precedents from the Populist and Progressive Eras. This approach, which was established in areas such as antitrust, railroad, and other utility regulation, involved Congressional delegation of rule-making authority to independent agencies. These rules are intended to define fair play in markets where some actors are considerably stronger than others or enjoy significant information advantages. Rule making is guided by administrative law and the enforcement of these rules can be triggered by private actors through recourse to the judicial system. This mode of regulation has been aptly characterized as "adversarial legalism" (Kagan 1991).

The most significant pieces of legislation here were the Securities Act of 1933 and the Securities Exchange Act of 1934. The first regulated the issuance of new securities through defining minimum information requirements for prospectuses and established a Securities and Exchange Commission (SEC) to oversee securities markets. The second authorized the SEC to develop rules for trading in secondary markets. In line with the adversarial legalistic pattern of state regulation, the SEC has developed an extensive set of rules and practices regarding conditions under which securities can be issued, minimum information requirements, fair determination of market prices, exercise of shareholder voting rights and communication with management, abuse of dominant market position, abuse of insider information, and takeover rules.

The weak system of national banking regulation was substantially strengthened under the New Deal, particularly under the 1933 and 1934 Banking Acts. A system of deposit insurance was established and an agency (the Federal Deposit Insurance Corporation) was created to administer this scheme. The Federal Reserve Board, the nation's central bank, was authorized under "Regulation Q" to establish maximum interest rates on deposits. Interestingly enough, bank regulators' attempts to encourage a limited form of corporatism in the guise of interest-rate cartels were struck down in the courts as a violation of competition law. Portions of the 1933 Banking Act (the "Glass-Steagall" provisions) effectively split the "mixed" banking

14 This shows that it is not necessarily correct to equate liberal regimes with laissez-faire regulation. As can be seen in the case of the financial system, it may in fact be neccesary to have a strong regulatory state in order to create the conditions under which "free" and fair contracting is possible.

system by forcing banks to choose between investment and commercial banking activities.

In contrast with Germany and Japan, this regulation led neither to the favoring of banks over securities markets nor to a significant increase in targeting of funds to specific sectors. Targeting was limited to some defense-related finance and, in the postwar period, favorable treatment of private residential housing finance. This type of regulation aimed more at separating the “speculative” securities markets from the commercial banking part of the financial system. Furthermore, speculative tendencies on securities markets were to be constrained by increasing transparency and imposing rules of fair play on more powerful market participants.

Unlike the German and Japanese cases, the importance of banks in the financial system as a whole and in the financing of industry decreased. Since the 1930s the relative importance of banks has shrunk from two-thirds to currently one-quarter of financial-system assets. With the exception of a brief comeback in the 1970s, bank loans have also decreased as a proportion of industrial company external liabilities since the 1920s.

Summing Up

With the risk of some oversimplification, the primary characteristics of the financial regulatory systems in Germany, Japan, and the United States can be usefully diagramed according to two dimensions (see Figure 1). The vertical axis illustrates the degree to which banks were to be favored over securities markets in an attempt to encourage stability in the financial system. Germany and Japan both receive very high scores, with Germany somewhat higher. The U.S. regulatory system, in contrast, does little to privilege the banking system over securities markets. The second dimension illustrates the degree of targeting of funds through the financial system. Japan, however, has the highest degree of targeting, while both Germany and the United States have relatively low degrees of targeting.

The Regulation of Labor: Elective Affinities with Finance?

A topic of great importance to financial systems but almost completely neglected by the comparative literature on financial systems is the interrelationship between the regulation of finance and the regulation of labor.[15] Before and during the early phases of industrialization, income and financial assets were highly concentrated among the richest households. Early financial institutions catered to the savings of these households and were generally not interested in having small savers as their customers. With industrialization came an increase in the share in the population and income of wage earners, and thus a growing proportion of savings was

15 In this section what might be termed the technical relationship between finance and labor as defined by the flow and distribution of funds is emphasized. On the political culture or "political discourse" roots of cross-national regulatory differences see the Lehmbruch contribution to this volume.

accounted for by this group. These dependent employees came to be incorporated not only in an industrial relations regime but also in what might be termed a savings regime.

Since the household sector accounts for the bulk of savings in industrializing countries, one of the key problems for bank-based systems is to limit household investment in securities (i.e., to limit the flow of household savings into the market segment of the financial system). Conversely, market-based financial systems are dependent upon a sufficient flow of household savings into securities in order to insure adequate liquidity.

Two aspects of the incorporation of labor into a savings-and-investment regime have a major impact on the demand for different types of financial assets. Since a growing proportion of household savings is accounted for by provision for retirement, the types of retirement savings programs established or promoted have an important influence on this demand.[16] In particular, private pension schemes organized on a fully funded (i.e., capitalized) basis have emerged in the postwar period as the largest purchasers of securities in market-based systems such as the United States and United Kingdom. The demand for securities is thus higher in “individualistic” systems emphasizing such capitalized private schemes. “Solidaristic” retirement systems, in contrast, are based more on the transfer of income between generations, defined either at the societal, company, or family level (in the case of social security, noncapitalized company pension plans, or family support). Solidaristic systems thus involve less demand for securities than capitalized systems.

Since different income groups have different preferences for various types of financial assets, the second important factor is the degree of inequality in the distribution of income (Vitols 1996). High-income households have the greatest demand for high-risk (but, on average, higher-yield) securitized assets such as stocks or corporate bonds. Middle-income households have a greater preference for less risky assets such as bank deposits. Low-income households have little ability to save, and what savings they do have is held mainly as cash or highly liquid bank deposits. The most important factors determining the distribution of income are the industrial relations regime and transfer programs (Mosher 1998). Bank-based systems are thus best supported by household sectors with low income inequality (and thus a high demand for bank deposits). Market-based financial systems, in contrast, are best supported by household sectors with high degrees of income inequality (and thus a high demand for securities with higher risk and return profiles).

The lower level of household-income inequality and greater emphasis on solidaristic retirement provision in Germany and Japan than in the United States are thus important factors supporting the bank-based systems in the former two countries.

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16 An analysis of the relationship between different types of retirement systems and their impact on financial systems and corporate governance emerges from collaboration with Gregory Jackson. See Jackson and Vitols 1998.

Of the three countries examined in this essay, the United States has by far the most significant capitalized pension system. The U.S. government has provided strong support for capitalized private pensions since 1942, mainly in the form of favorable tax provisions. The combined assets of private pension funds and insurance companies (which to a large part administer pension assets) were about four times greater as a percentage of GNP in the United States than in Germany and Japan in 1970 (see Table 3). The United States has the least solidaristic system of the three countries, with public payouts accounting for about two-thirds of pension payouts as opposed to about 80 percent for the other two countries. Although social security has a relatively high replacement rate for low-income earners, the replacement rate decreases steeply with increasing income. In 1986 social security accounted for 73 percent of the income of the lowest income quartile of retirees but only 13 percent of the income of the highest income quartile; in Germany the corresponding figures were 84 and 33 percent, respectively, for 1981.

Public pensions play the greatest role in Germany; in 1980, for example, public pension payout came to 10.6 percent of GDP (Table 4). Germany is known as a pioneer in social security policy, having established a statutory pension system in 1889 (see Philip Manow's contribution to this volume). This system is organized on a pay-as-you-go basis and accumulates a reserve of only about one month's payout; thus is not a major player in capital markets.

Germany is also distinguished by the degree to which noncapitalized company pensions have been encouraged. Postwar tax and pension policy encouraged companies to provide for future pension obligations through a system of book reserves rather than through establishing capitalized pension funds. Thus employees' future pensions were in effect relent to the company (and guaranteed by the efforts of future generations of employees) rather than invested in financial securities. The combination of generous pay-as-you-go public pensions and book reserve company pensions led to a low demand for securities.

Japan also has a considerably more solidaristic pension system than the United States. Japan first introduced a statutory pension system for private employees in 1941 (the Employee's Pension Insurance System) as part of a system of forced saving to finance the war. After the war, the public pension system evolved into a relatively generous system. However, actual payouts as a percentage of GDP were significantly lower than in the other two countries due to the much lower average age of the Japanese population after the war. Only larger companies (over 500 employees) were allowed to opt out of the public scheme on the condition that benefits provided were at least as generous as public pensions. Although statistics are not available to demonstrate this point, anecdotal evidence indicates that intergenerational transfers within the family (i.e., family solidarity) may play a greater role than in the other two countries.

Although the Japanese public pension system is partially funded and, over time, has accumulated substantial capital, much of it was channeled directly into the industrial policy apparatus rather than into open capital markets. Furthermore, as in the German case, companies were allowed to provide for a substantial portion of their pension liabilities through balance-sheet reserves rather than through capitalized pension funds. Thus the demand for financial securities from Japan's pension system has been considerably lower than is the case in the United States.[17]

Distribution of Income

It is difficult to make precise comparisons regarding income inequality. The only major cross-national survey (the Luxembourg Income Study) started in the 1980s and excluded Japan, and national surveys vary somewhat in methodology and definition of variables. Nevertheless, the magnitude of many differences is large enough to allow for the following two conclusions: (1) all three countries experienced a major decrease in income inequality in the middle of the twentieth century, and (2) Germany and Japan became considerably more egalitarian than the United States.

Particularly striking are the differences between the highest and lowest income groups. The ratio between the income of the highest and lowest 10 percent of households in the 1980s was around 6 in the United States as compared to 3 in Germany and 3.5 in Japan (Atkinson, Rainwater, and Smeeding 1995, 40, 70). The poorest 20 percent of households in the United States received about 5 percent of total household income during the postwar period versus about 9 percent for Japan and 10 percent in Germany (ibid., 44 and 70; U.S. Department of Commerce 1975). The proportion of low-income households (those earning less than 50 percent of median income) in the United States in the 1980s was almost three times higher than in Germany (18.4 versus 6.5 percent).

These differences are to a large extent attributable to the industrial relations systems in the three countries (Mosher 1998). Germany developed in the 1920s and elaborated after World War II a corporatist collective bargaining system involving industry-wide unions and employers' associations.[18] In addition to narrowing the differences between different skill categories, wage dispersion within skill categories was also reduced. The rapidly expanding "middle income" group thus included not only the growing number of white-collar workers (Angestellte) but also skilled workers sharing in the fruits of productivity growth. Though a very different system of enterprise-based unionism was established in Japan, this system also involved relatively low wage dispersion due to low differentials between different skill levels and a system of coordinated wage bargaining between large companies ("spring offensive"). The United States, in contrast, retained quite large wage differentials between skill levels and between unionized and nonunionized companies.

These differences in income distribution have a major impact on the overall household sector pattern of demand for types of financial assets. In the United

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17 While both Germany and Japan have more solidaristic systems than the US, it is important to note that the focus of soldarity is quite different, with solidarity being defined much more at the firm level in Japan versus at the societal level in Germany. This has important consequences, e.g. for the current politics of pension reform in both countries.

18 While postwar institutions of course shed the authoritarian principles of Nazi Germany, there were important institutional continuities between the two periods, including industrial unions, a high degree of "bindingness" in the employment relationship, and extra-company wage setting.

States in 1983, 78 percent of the financial wealth of the top 10 percent of households was accounted for by securities (equities and bank and municipal bonds) versus only 10 percent in bank-related assets (checking and savings deposits and certificates of deposit). The corresponding percentages for the bottom 90 percent of households were 29 for securities and 51 for bank-related assets (see Table 5). Other countries also display a similar large bias toward the accumulation of financial securities by wealthy households (Euler 1981, 1990; Willgerodt, Bartel, and Schillert 1971).

Conclusion

While sympathetic to the historical institutionalist approach of explaining cross-national differences, this essay has argued for a reexamination of the orthodox explanation of differences in financial systems, the timing of industrialization thesis (TOI). A careful examination of the evidence indicates that TOI has overstated the contribution of banks to the late but rapid industrialization of Germany and Japan. Banks in both countries appear to have been relatively conservative in their lending policies and have favored firms that were already on a firm financial footing ("development assistance for the strong"). Furthermore, by the early twentieth century, the degree of differences in the financial systems of these two countries and of the United States, a country that industrialized considerably earlier, were smaller than suggested by TOI. All three countries had predominantly laissez-faire systems of regulation in the late nineteenth and early twentieth centuries. Financial systems in these countries were dominated by banks, which accounted for the bulk of financial-system assets and were involved in both lending and underwriting activities. These systems, however, were characterized by considerable instability culminating in the Great Depression.

I have argued that the differences in postwar systems are largely attributable to a major increase in regulatory intervention by the state in the 1930s and 1940s and to the different policy choices made in response to two questions: how can financial instability be controlled, and should financial systems be used a major tool for achieving collective economic and social goals. The diversity of regulatory solutions can be attributed to differences in the ideologies of state elites and in the nature of economic and social goals pursued. In the United States, where antimarket attitudes were weak, a liberal approach of defining and enforcing rules for fair play in markets supported the development of a market-based financial system with limited targeting. In Germany, the corporatist approach allowed banks to maintain a dominant position in the financial system but precluded major targeting of financial resources by the state. In Japan, an antimarket attitude combined with more ambitious public goals regarding war mobilization and reconstruction led to more extensive state micromanagement of the dominant banks through a system of licensing and administrative guidance.

My second major assertion is that the establishment of stable regulatory regimes depended not only on the regulation of financial institutions in the narrow sense but also of labor. The sustainability of bank-based systems depends on limiting the flow of household savings into marketable securities instead of bank deposits. Furthermore, bank-based systems with high levels of targeting depend on a flow of household savings into the portions of the banking system over which the state has the most control. The social security and industrial relations systems have a crucial impact on the houshold sector's demand for different types of financial assets. The claim made here is that Germany and Japan have a constellation of factors in the regulation of labor, namely, high income equality and a lack of capitalized pensions, that limit the demand for marketable securities relative to bank deposits. These factors are considerably weaker in the United States, which has a higher degree of income inequality and a capitalized and significant private pension system.

This problem of the elective affinity of financial and labor regimes must be considered not only in the construction of regulatory regimes in the mid-twentieth century but also in the current pressures for the transformation of these regimes. The potential for transformation of the U.S. market-based system into a more embedded system is clearly quite limited, requiring the development of a comprehensive system of regulation not only for the financial system but also for labor markets. The more challenging question is the potential for transformation of the German and Japanese systems into more market-based systems. One question is: to what extent can the German and Japanese financial systems not only be deregulated but also reregulated, with the same types of constraints on capital markets as the United States has? A second question is: do domestic labor markets also have to be transformed, or does foreign capital suffice for a transformation into a much more market-based variant?

A preliminary answer to this question would be that Germany would seem to have a greater potential for transformation toward a market system than Japan. The corporatist tradition in Germany is much more compatible than the Japanese system of administrative guidance with U.S.-style financial system constraints. The potential for some kind of "hybrid" system—which would mainly depend upon foreign capital for more liquid finance but would also maintain more employment security and an equal distribution of income—would also appear to be greater in Germany than in Japan. First of all, a smaller number of companies accounting for a smaller proportion of employment are listed on stock exchanges in Germany; thus, a smaller proportion of the economy would be directly affected by the transformation of capital market regulation. Second, the system of codetermination appears to have greater potential for adaptation to a more market-based system and "shareholder value" concepts than the Japanese system of lifelong employment. The codetermination system appears to have a higher capacity to maintain solidarity while negotiating over changes such as increase in performance demands, sale of noncore and underperforming subsidiaries, and transformation of payment systems.

Table 1

Structure of Postwar Financial Systems, Mid-1990s

	Japan	Germany	United States
Proportion of Banking System Assets in Total Financial System Assets, 1996	63.6%	74.3%	24.6%
Proportion of Securitized Assets in Total Financial Assets, 1996	22.9%	32.0%	54.0%
Proportion of Securitized Assets in Total Household Sector Assets, 1995	12.4%	28.8%	35.9%
Proportion of Securitized Liabilities in Total Financial Liabilities of Nonfinancial Enterprises, 1995	15.4%	21.1%	61.0%
Outstanding Financial Liabilities of Public Sector Accounted for by Securities, 1995	71.2%	56.7%	89.6%

Sources: Calculated from Flow of Funds Statistics, U.S. Federal Reserve Board, Deutsche Bundesbank, and Bank of Japan.

Table 2

Financial Aspects of Germany, Japan, and the United States, 1912 and 1925

	Japan	Germany	United States
Size of Securities Markets Relative to GDP, 1912	0.97[a]	1.21	1.47
Banking System Assets as a Proportion of Total Financial System Assets, 1925[b]	0.85	0.91	0.81

Sources: Ott 1961, Deutsche Bundesbank 1976, U.S. Department of Commerce 1975.

Notes:

[a]. Estimate based on share of new securities issues in total flow of funds 1909-14 (Ott 1961, 125-26).

[b]. Total financial system assets minus assets of central bank, insurance companies, and pension funds.

Table 3

Pension Fund and Life Insurance Company Assets, 1970

(Percentage of GDP)

	Germany	Japan	United States
Pension Funds	2	0	17
Life Insurance Companies	8	8	20
Total	10	8	37

Source: Davis 1995, 55-56.

Table 4

Public and Private Pension Benefits, 1980

(Percentage of GDP)

	Germany	**Japan**	**US**
Public Pensions	10.6	4.1	6.9
Private Pensions	2.6	0.9	3.3
Total	13.2	5.0	10.2
Public/Private Mix	80%/20%	82%/18%	68%/32%

Source: OECD 1988.

Table 5

Distribution of U.S. Household Financial Assets by Income Group, 1983

Type of Financial Asset	Bottom 90%	Top 10%	Top ½%
Checking accounts	7.6%	2.4%	1.3%
Savings accounts	14.9%	2.7%	5.4%
Certificates of deposit	28.3%	6.2%	2.9%
Total Bank-Related Assets	50.8%	11.3%	9.6%
Money-market accounts	11.5%	7.4%	4.4%
U.S. savings bonds	2.1%	0.5%	0.4%
Notes owed to family	6.6%	2.7%	1.9%
Other Nonsecuritized Assets	20.2%	10.6%	6.7%
Municipal bonds	1.5%	7.9%	8.8%
Corporate bonds	4.3%	5.2%	3.7%
Corporate equities	14.6%	38.6%	36.1%
Mutual funds	2.2%	4.2%	3.0%
Trust accounts	6.5%	22.2%	32.1%
Total Securitized Assets	29.1%	78.1%	83.7%
Total financial assets	100.0%	100.0%	100.0%

Source: Avery and Elliehausen 1986. Trust accounts are included under securitized assets since these are almost entirely invested in securities.

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